**PlaceIQ: Docker Setup Guide**

This guide explains how to set up and run the PlaceIQ application using Docker and Docker Compose. Follow the steps below to create and launch Neo4j and Spring Boot instances.

**Prerequisites**

Ensure the following are installed on your system:

* **Docker**: [Install Docker](https://docs.docker.com/get-docker/)
* **Docker Compose**: [Install Docker Compose](https://docs.docker.com/compose/install/)

**Step 1: Clone the Repository**

Code is in the folder present along with **docker-compose.**yml file.

**Step 2: Build the Spring Boot Application Docker Image**

1. Navigate to the Spring Boot application directory:
2. cd springboot-app
3. Build the Docker image for the Spring Boot application:
4. docker build -t placeiq-springboot .
5. Return to the repository root directory:
6. cd ..

**Step 3: Start the Application with Docker Compose**

1. Run the following command to start the containers:
2. docker-compose up

This will:

* + Pull and run a Neo4j image as the database service.
  + Run the PlaceIQ Spring Boot application as a microservice.

1. Confirm the containers are running:
2. docker ps

You should see two containers running: one for Neo4j and one for the Spring Boot application.

**Step 4: Access the Services**

**Neo4j**

1. Open your web browser and navigate to the Neo4j browser:
2. http://localhost:7474
3. Log in using the default credentials:
   * **Username:** neo4j
   * **Password:** ishaansharma
4. Change the password on the first login, as prompted.

**Spring Boot Application**

1. The Spring Boot application will be accessible at:
2. http://localhost:8080
3. Use the API endpoints for uploading CSV files and querying recommendations. Refer to the API documentation for endpoint details.

**Step 5: Stop the Services**

1. To stop the containers, use the following command:
2. docker-compose down

**Optional: View Logs**

To view logs from the running containers:

* **Neo4j logs:**
* docker logs <neo4j\_container\_id>
* **Spring Boot logs:**
* docker logs <springboot\_container\_id>

**Opening the PlaceIQ HTML File**

1. Navigate to the folder where the PlaceIQ project files are located.  
   Ensure the graph\_visualization.html file is present in the folder.
2. Open the HTML file in a web browser:
   * On **Windows/macOS**:
     + Locate the graph\_visualization.html file in your file explorer.
     + Double-click on it to open in your default browser.
   * Alternatively, right-click the file and select **Open With** to choose a specific browser (e.g., Google Chrome, Firefox).
3. View the PlaceIQ interface in your browser and interact with the available features.

A screenshot of a computer

Description automatically generated

**Additional Notes**

* Ensure that port 7474 for Neo4j and port 8080 for Spring Boot are not being used by other services on your machine.
* You can modify the docker-compose.yml file to customize configurations like ports or environment variables.

**Troubleshooting**

* If you encounter issues, check the Docker logs for detailed error messages.
* Ensure that your Docker daemon is running.

Thank you for setting up PlaceIQ! For further assistance, feel free to reach out or check the project documentation.